

# \*09424686\*

1600

**RAW SEQUENCE LISTING**  
PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003  
TIME: 13:23:05

Input Set : N:\AMC\6497882.txt  
Output Set: N:\CRF4\01022003\I424686B.raw

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4 <110> APPLICANT: Hagen, Gustav
5      Siegmund, Hans-Ulrich
6      Weichel, Walter
7      Wick, Maresa
8      Zubov, Dmitry
10 <120> TITLE OF INVENTION: Human Catalytic Telomerase Sub-Unit and its Diagnostic and
11 Therapeutic Use
13 <130> FILE REFERENCE: Bayer 10,203
15 <140> CURRENT APPLICATION NUMBER: US 09/424,686B
17 <141> CURRENT FILING DATE: 1999-11-29
19 <150> PRIOR APPLICATION NUMBER: PCT/EP98/03468
21 <151> PRIOR FILING DATE: 1998-06-09
23 <160> NUMBER OF SEQ ID NOS: 7
25 <170> SOFTWARE: Microsoft Word

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**ERRORED SEQUENCES**

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640 <210> SEQ ID NO: 7
641 <211> LENGTH: 2089
642 <212> TYPE: DNA
643 <213> ORGANISM: Homo sapiens
645 <400> SEQUENCE: 7
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648 gcagctgcgg gagctgtcgg aagcagaggt caggcagcat cggaaagcca ggccgcgcct 120
650 gctgacgtcc agactccgt tcataccccaa gcctgacggg ctgcggccga ttgtgaacat 180
652 ggactacgtc gtgggagcca gaacgttccg cagagaaaag agggccgagc gtctcacctc 240
654 gagggtgaag gcaactgttca gcgtgctcaa ctacgagcgg ggcgcggcgcc ccggcctcct 300
656 gggcgccctct gtgctgggcc tggacgatat ccacagggcc tggcgacaccc ttgtgtgcg 360
658 tgtgcgggcc caggaccgc cgcctgagct gtactttgtc aaggtggatg tgacgggcgc 420
660 gtacgacacc atcccccagg acaggctcac ggaggtcatc gccagcatca tcaaacccta 480
662 gaacacgtac tgcgtgcgtc ggtatgccgt ggtccagaag gcccgcctat ggcacgtccg 540
664 caaggccttc aagagccacg tctctacctt gacagaccc tcagccgtaca tgcgacagtt 600
666 cgtggctcac ctgcaggaga ccagccgcgt gaggggtgcc gtcgtcatcg agcagagctc 660
668 ctccctgaat gaggccagca gtggcctt ccacgtcttc ctacgcttca tgtgccacca 720
670 cgccgtgcgc atcagggca agtcctacgt ccagtgcgcg gggatccgc agggctccat 780
672 cctctccacg ctgctctgca gcctgtgcta cggcgacatg gagaacaagc tgttgcggg 840
674 gattcggcgg gacgggctgc tcctgcgtt ggtggatgat ttcttgtgg tgacacctca 900
676 cctcaccac gcaaaaacct tcctcaggac cctggccga ggtgtccctg agtatggctg 960
678 cgtggtaac ttgcggaaaga cagtggtaa cttccctgtt gaagacgagg ccctgggtgg 1020
680 cacggcttt gttcagatgc cggcccacgg cctattcccc tggtgccgc tgctgctgga 1080
682 taccggacc ctggaggtgc agagcgacta ctccagctat gccccgaccc ccatcagagc 1140
684 cagtctcacc ttcaaccgcg gcttcaaggc tggaggaac atgcgtcgca aactctttgg 1200

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*P.2*  
Does Not Comply  
Corrected Diskette Needed

**RAW SEQUENCE LISTING**

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:23:06

Input Set : N:\AMC\6497882.txt

Output Set: N:\CRF4\01022003\I424686B.raw

686 ggtcttgcgg ctgaagtgtc acagcctgtt tctggatttg caggtgaaca gcctccagac 1260  
688 ggtgtgcacc aacatctaca agatcctcct gctgcaggcg tacaggttc acgcatgcgt 1320  
690 gctgcagctc ccatttcatac agcaagtttgaagaacccc acattttcc tgccgcgtcat 1380  
692 ctctgacacg gcctccctct gctactccat cctgaaagcc aagaacgcag gtatgtcag 1440  
694 gtgcctggcc toagtggcag cagtgcctgc ctgctggtgt tagtgtgtca ggagactgag 1500  
696 tgaatctggg cttaggaagt tcttaccctt ttccatca ggaagtgggttaacccaacc 1560  
698 actgtcaaggc tcgtctgccc gccctctcggtgggtgagca gagcaccta tggaaggac 1620  
700 aggagctgtc tggagactgc catccttccc accttgcctgcctggggaa ggcctgggg 1680  
702 gcctggtctc tcctgtttgc cccatggtgg gattgggggcctggcctc tcctgtttgc 1740  
704 cctgtggtgg gattgggctg tctcccgtcc atggcactta gggcccttgt gcaaaccag 1800  
706 gccaaggct taggaggagg ccaggcccac gctacccac ccctctcagg agcagaggcc 1860  
708 gcgttatcacc acgacagagc cccgcgcgt cctctgccttc ccagtcaccg tcctctgccc 1920  
710 ctggacactt tgtccagcat cagggaggtt tctgatccgt ctgaaattca agccatgtcg 1980  
712 aacctgcggcctgagctta acagttcta ctgtttgttc ttctgtgtt gtggagaccc 2040  
714 tgagaaggac cctggagact ctggaaattt ggagtgacca aagggtgtc 2089

E--&gt; 719 (13)

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:23:07

Input Set : N:\AMC\6497882.txt

Output Set: N:\CRF4\01022003\I424686B.raw

L:719 M:254 E: No. of Bases conflict, this line has no nucleotides.

**\*09424686\***

1600

**RAW SEQUENCE LISTING**  
PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003  
TIME: 13:28:38

Input Set : N:\AMC\6497882.txt  
Output Set: N:\CRF4\01022003\I424686B.raw

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4 <110> APPLICANT: Hagen, Gustav
5      Siegmund, Hans-Ulrich
6      Weichel, Walter
7      Wick, Maresa
8      Zubov, Dmitry
10 <120> TITLE OF INVENTION: Human Catalytic Telomerase Sub-Unit and its Diagnostic and
11 Therapeutic Use
13 <130> FILE REFERENCE: Bayer 10,203
15 <140> CURRENT APPLICATION NUMBER: US 09/424,686B
17 <141> CURRENT FILING DATE: 1999-11-29
19 <150> PRIOR APPLICATION NUMBER: PCT/EP98/03468
21 <151> PRIOR FILING DATE: 1998-06-09
23 <160> NUMBER OF SEQ ID NOS: 7
25 <170> SOFTWARE: Microsoft Word
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 4042
29 <212> TYPE: DNA
30 <213> ORGANISM: Homo sapiens
32 <400> SEQUENCE: 1
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35 cgatgccgcg cgctccccgc tgccgagccg tgcgtccct gctgcgcagc cactaccgcg 120
37 aggtgctgcc gctggccacg ttccgtgcggc gcctggggcc ccaggctgg cggctggc 180
39 agcgcgggaa cccggcggtt ttccgcgcgc tggtgccca gtgcctgg tgcgtgccct 240
41 gggacgcacg gccgcggggc gcccgcggcc cttccgcgc ggtgtccctgc ctgaaggagc 300
43 tggtgcccg agtgctgcag aggctgtgcg agcgcggcgc gaagaacgtg ctggccttcg 360
45 gttcgcgt gctggacggg gcccgcggg gcccgcggc ggccttcacc accagcgtgc 420
47 gcagctacct gccaacacgc gtgaccgcacg cactgcgggg gagcggggcg tggggctgc 480
49 tgctgcgccg cgtggcgac gacgtctgg ttcacctgt ggcacgcgt gcgcctttgc 540
51 tgctgggtgc tccagctgc gcctaccagg tgtgcgggccc gccgcgttac cagctcgccg 600
53 ctgccactca ggcccgcccccc ccgcacacgc ctatggacc ccgaaggcgt ctggatgcg 660
55 aacgggcctg gaaccatagc gtcaggaggcc ccggggctcc cctgggcctg ccagcccccgg 720
57 gtgcgaggag ggcggggggc agtgcgcaccc gaaatgtgc gttgcggaaaggcccaggc 780
59 gtggcgctgc ccctgagccg gagcggacgc ccgttggca ggggtctgg gcccacccgg 840
61 gcaggacgcg tggaccgagt gaccgtggtt tctgtgttgt gtcacactgcc agacccggc 900
63 aagaagccac ctctttggag ggtgcgtct ctggcacgcg ccactccac ccattccgtgg 960
65 gccggccagca ccacgcgggc ccccatcca catgcggcc accacgtccc tgggacacgc 1020
67 ctgtcccccc ggtgtacgcc gagaccaagc acttcctcta ctcctcaggc gacaaggagc 1080
69 agctgcggcc ctccttccta ctcagctctc tgaggcccag cctgactggc gctcggaggc 1140
71 tcgtggagac catctttctg gttccaggc cctggatgcc agggactccc cgcaggttgc 1200
73 cccgcctgcc ccagcgctac tggcaaatgc ggccctgtt tctggagctg cttggaaacc 1260
75 acgcgcagtg cccctacggg gtgcctcata agacgcactg cccgctgcga gctgcgtca 1320
77 ccccgccagc cgggtctgt gcccggaga agcccccaggc ctctgtggcgc gccccggagg 1380
79 aggaggacac agaccccggt cgcctggcgc agctgctccg ccagcacagc agcccccggc 1440

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:28:38

Input Set : N:\AMC\6497882.txt

Output Set: N:\CRF4\01022003\I424686B.raw

81 aggtgtacgg cttcgtgcgg gcctgcctgc gccggctggt gccccaggc ctctgggct 1500  
 83 ccaggcacaa cgaacgccc ttcctcagga acaccaagaa gttcatctcc ctggggaaagc 1560  
 85 atgccaagct ctcgctgcag gagctgacgt ggaagatgag cgtcgccggac tgcgcttggc 1620  
 87 tgcgcaggag cccagggtt ggctgtgttc cggccgcaga gcaccgtctg cgtgaggaga 1680  
 89 tcctggccaa gttcctgcac tggctgatga gtgtgtacgt cgtcgagctg ctcaggtctt 1740  
 91 tcttttatgt cacggagacc acgtttcaaa agaacaggtt cttttctac cggaagagt 1800  
 93 tctggagcaa gttgcaaagc attggaatca gacagcactt gaagagggtg cagctgcggg 1860  
 95 agctgtcgga agcagagggtc aggacgtatc ggaaagccag gcccgcctg ctgacgtcca 1920  
 97 gactccgctt catccccaaag cctgacgggc tgcggccgat tgtgaacatg gactacgtcg 1980  
 99 tgggagccag aacgttccgc agagaaaaga gggccgagcg tctcacctcg agggtaagg 2040  
 101 cactgttcag cgtgctcaac tacgagcggg cgcggcgcggc cggcctcctg ggcgcctctg 2100  
 103 tgctggcct ggacgatatac cacaggcctt ggcgcacccct cgtgctgcgt gtgcgggccc 2160  
 105 aggacccgcc gcctgagctg tactttgtca aggtggatgt gacggggcg g tacgacacca 2220  
 107 tcccccaagga caggctcagc gaggtcatcg ccagcatcat caaacccag aacacgtact 2280  
 109 gcgtgcgtcg gtatgccgtg gtccagaagg ccgcgcattgg gcacgtccgc aaggccttca 2340  
 111 agagccacgt ctctacctt acagacctcc agccgtacat ggcacagtcc gtggctcacc 2400  
 113 tgcaggagac cagccgcgtg agggatgccc tcgtcatcg gcagagctcc tccctgaatg 2460  
 115 aggccagcag tggcctttc gacgtcttcc tacgcttcat gtgccaccac ggcgtgcga 2520  
 117 tcagggccaa gtcctacgtc cagtgcagg ggatccgc gggctccatc ctctccacgc 2580  
 119 tgctctgcag cctgtgtac ggcgcacatgg agaacaagct gttgcgggg attcggccgg 2640  
 121 acgggctgct cctgcgttt gtggatgatt tcttgttggt gacacctcac ctacccacg 2700  
 123 cggaaacctt ctcaggacc ctggcccgag gtgtccctga gtatggctgc gtggtaact 2760  
 125 tgcggaaagac agtggtaac ttccctgttag aagacgaggc cctgggtggc acggctttg 2820  
 127 ttcagatgcc ggcccacggc ctattccctt ggtgcggcct gctgctggat acccggaccc 2880  
 129 tggaggtgca gagcgactac tccagctatg cccggaccc catcagagcc agtctcacct 2940  
 131 tcaaccgcgg cttcaaggct ggaggaaca tgcgtcgcaa actctttggg gtcttgccgg 3000  
 133 tgaagtgtca cagcctgtt ctggatttc aggtgaacag cctccagacg gtgtgcacca 3060  
 135 acatctacaa gatcctcctg ctgcaggcgt acaggttca cgcatgtgtc ctgcagctcc 3120  
 137 catttcatca gcaagtttg aagaacccca cattttccct ggcgtcatac tctgacacgg 3180  
 139 cttccctctg ctactccatc ctgaaagcca agaacgcagg gatgtcgctg gggccaagg 3240  
 141 gcggccggcgg ccctctgccc tccgaggccg tgcagtggct gtgccaccaa gcattcctgc 3300  
 143 tcaagctgac tcgacaccgt gtcacccatcg tgccactcctt ggggtcactc aggacagccc 3360  
 145 agacgcagct gagtcggaag ctccggggc cgacgctgac tgcctggag gcccggacca 3420  
 147 accccggact gcccctcagac ttcaagacca tcctggactg atggccaccc gcccacagcc 3480  
 149 aggccgagag cagacaccag cagccctgtc acggccggctt ctacgtccca gggagggagg 3540  
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 157 caccggccagg ccagtttc ctcaccagga gcccggcttc cactccccac ataggaatag 3780  
 159 tccatccccca gattcgccat ttttccatccc tccggctgccc cttccatccc ttccacccccc 3840  
 161 accatccagg tggagaccct gagaaggacc ctgggagctc tggaaatttg gagtgcacca 3900  
 163 aggtgtgccc tgtacacagg cgaggaccct gcacctggat gggggccct gtgggtcaaa 3960  
 165 ttggggggag gtgctgtgg agtaaaatac tgaatatatg agttttcag ttttggaaaa 4020  
 167 aaaaaaaaaa aaaaaaaaaa aa 4042  
 171 <210> SEQ ID NO: 2  
 172 <211> LENGTH: 1132  
 173 <212> TYPE: PRT  
 174 <213> ORGANISM: Homo sapiens  
 176 <400> SEQUENCE: 2

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:28:38

Input Set : N:\AMC\6497882.txt

Output Set: N:\CRF4\01022003\I424686B.raw

177 Met Pro Arg Ala Pro Arg Cys Arg Ala Val Arg Ser Leu Leu Arg Ser  
 178 1 5 10 15  
 180 His Tyr Arg Glu Val Leu Pro Leu Ala Thr Phe Val Arg Arg Leu Gly  
 181 20 25 30  
 183 Pro Gln Gly Trp Arg Leu Val Gln Arg Gly Asp Pro Ala Ala Phe Arg  
 184 35 40 45  
 186 Ala Leu Val Ala Gln Cys Leu Val Cys Val Pro Trp Asp Ala Arg Pro  
 187 50 55 60  
 189 Pro Pro Ala Ala Pro Ser Phe Arg Gln Val Ser Cys Leu Lys Glu Leu  
 190 65 70 75 80  
 192 Val Ala Arg Val Leu Gln Arg Leu Cys Glu Arg Gly Ala Lys Asn Val  
 193 85 90 95  
 195 Leu Ala Phe Gly Phe Ala Leu Leu Asp Gly Ala Arg Gly Gly Pro Pro  
 196 100 105 110  
 198 Glu Ala Phe Thr Thr Ser Val Arg Ser Tyr Leu Pro Asn Thr Val Thr  
 199 115 120 125  
 201 Asp Ala Leu Arg Gly Ser Gly Ala Trp Gly Leu Leu Arg Arg Val  
 202 130 135 140  
 204 Gly Asp Asp Val Leu Val His Leu Leu Ala Arg Cys Ala Leu Phe Val  
 205 145 150 155 160  
 207 Leu Val Ala Pro Ser Cys Ala Tyr Gln Val Cys Gly Pro Pro Leu Tyr  
 208 165 170 175  
 210 Gln Leu Gly Ala Ala Thr Gln Ala Arg Pro Pro Pro His Ala Ser Gly  
 211 180 185 190  
 213 Pro Arg Arg Arg Leu Gly Cys Glu Arg Ala Trp Asn His Ser Val Arg  
 214 195 200 205  
 216 Glu Ala Gly Val Pro Leu Gly Leu Pro Ala Pro Gly Ala Arg Arg Arg  
 217 210 215 220  
 219 Gly Gly Ser Ala Ser Arg Ser Leu Pro Leu Pro Lys Arg Pro Arg Arg  
 220 225 230 235 240  
 222 Gly Ala Ala Pro Glu Pro Glu Arg Thr Pro Val Gly Gln Gly Ser Trp  
 223 245 250 255  
 225 Ala His Pro Gly Arg Thr Arg Gly Pro Ser Asp Arg Gly Phe Cys Val  
 226 260 265 270  
 228 Val Ser Pro Ala Arg Pro Ala Glu Glu Ala Thr Ser Leu Glu Gly Ala  
 229 275 280 285  
 231 Leu Ser Gly Thr Arg His Ser His Pro Ser Val Gly Arg Gln His His  
 232 290 295 300  
 234 Ala Gly Pro Pro Ser Thr Ser Arg Pro Pro Arg Pro Trp Asp Thr Pro  
 235 305 310 315 320  
 237 Cys Pro Pro Val Tyr Ala Glu Thr Lys His Phe Leu Tyr Ser Ser Gly  
 238 325 330 335  
 240 Asp Lys Glu Gln Leu Arg Pro Ser Phe Leu Leu Ser Ser Leu Arg Pro  
 241 340 345 350  
 243 Ser Leu Thr Gly Ala Arg Arg Leu Val Glu Thr Ile Phe Leu Gly Ser  
 244 355 360 365  
 246 Arg Pro Trp Met Pro Gly Thr Pro Arg Arg Leu Pro Arg Leu Pro Gln  
 247 370 375 380  
 249 Arg Tyr Trp Gln Met Arg Pro Leu Phe Leu Glu Leu Leu Gly Asn His

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:28:38

Input Set : N:\AMC\6497882.txt

Output Set: N:\CRF4\01022003\I424686B.raw

250	385	390	395	400
252	Ala Gln Cys Pro Tyr Gly Val Leu Leu Lys Thr His Cys Pro Leu Arg			
253	405	410	415	
255	Ala Ala Val Thr Pro Ala Ala Gly Val Cys Ala Arg Glu Lys Pro Gln			
256	420	425	430	
258	Gly Ser Val Ala Ala Pro Glu Glu Asp Thr Asp Pro Arg Arg Leu			
259	435	440	445	
261	Val Gln Leu Leu Arg Gln His Ser Ser Pro Trp Gln Val Tyr Gly Phe			
262	450	455	460	
264	Val Arg Ala Cys Leu Arg Arg Leu Val Pro Pro Gly Leu Trp Gly Ser			
265	465	470	475	480
267	Arg His Asn Glu Arg Arg Phe Leu Arg Asn Thr Lys Lys Phe Ile Ser			
268	485	490	495	
270	Leu Gly Lys His Ala Lys Leu Ser Leu Gln Glu Leu Thr Trp Lys Met			
271	500	505	510	
273	Ser Val Arg Asp Cys Ala Trp Leu Arg Arg Ser Pro Gly Val Gly Cys			
274	515	520	525	
276	Val Pro Ala Ala Glu His Arg Leu Arg Glu Glu Ile Leu Ala Lys Phe			
277	530	535	540	
279	Leu His Trp Leu Met Ser Val Tyr Val Val Glu Leu Leu Arg Ser Phe			
280	545	550	555	560
282	Phe Tyr Val Thr Glu Thr Phe Gln Lys Asn Arg Leu Phe Phe Tyr			
283	565	570	575	
285	Arg Lys Ser Val Trp Ser Lys Leu Gln Ser Ile Gly Ile Arg Gln His			
286	580	585	590	
288	Leu Lys Arg Val Gln Leu Arg Glu Leu Ser Glu Ala Glu Val Arg Gln			
289	595	600	605	
291	His Arg Glu Ala Arg Pro Ala Leu Leu Thr Ser Arg Leu Arg Phe Ile			
292	610	615	620	
294	Pro Lys Pro Asp Gly Leu Arg Pro Ile Val Asn Met Asp Tyr Val Val			
295	625	630	635	640
297	Gly Ala Arg Thr Phe Arg Arg Glu Lys Arg Ala Glu Arg Leu Thr Ser			
298	645	650	655	
300	Arg Val Lys Ala Leu Phe Ser Val Leu Asn Tyr Glu Arg Ala Arg Arg			
301	660	665	670	
303	Pro Gly Leu Leu Gly Ala Ser Val Leu Gly Leu Asp Asp Ile His Arg			
304	675	680	685	
306	Ala Trp Arg Thr Phe Val Leu Arg Val Arg Ala Gln Asp Pro Pro Pro			
307	690	695	700	
309	Glu Leu Tyr Phe Val Lys Val Asp Val Thr Gly Ala Tyr Asp Thr Ile			
310	705	710	715	720
312	Pro Gln Asp Arg Leu Thr Glu Val Ile Ala Ser Ile Ile Lys Pro Gln			
313	725	730	735	
315	Asn Thr Tyr Cys Val Arg Arg Tyr Ala Val Val Gln Lys Ala Ala His			
316	740	745	750	
318	Gly His Val Arg Lys Ala Phe Lys Ser His Val Ser Thr Leu Thr Asp			
319	755	760	765	
321	Leu Gln Pro Tyr Met Arg Gln Phe Val Ala His Leu Gln Glu Thr Ser			
322	770	775	780	

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:28:38

Input Set : N:\AMC\6497882.txt  
 Output Set: N:\CRF4\01022003\I424686B.raw

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324 Pro Leu Arg Asp Ala Val Val Ile Glu Gln Ser Ser Ser Leu Asn Glu
325 785 790 795 800
327 Ala Ser Ser Gly Leu Phe Asp Val Phe Leu Arg Phe Met Cys His His
328 805 810 815
330 Ala Val Arg Ile Arg Gly Lys Ser Tyr Val Gln Cys Gln Gly Ile Pro
331 820 825 830
333 Gln Gly Ser Ile Leu Ser Thr Leu Leu Cys Ser Leu Cys Tyr Gly Asp
334 835 840 845
336 Met Glu Asn Lys Leu Phe Ala Gly Ile Arg Arg Asp Gly Leu Leu Leu
337 850 855 860
339 Arg Leu Val Asp Asp Phe Leu Leu Val Thr Pro His Leu Thr His Ala
340 865 870 875 880
342 Lys Thr Phe Leu Arg Thr Leu Val Arg Gly Val Pro Glu Tyr Gly Cys
343 885 890 895
345 Val Val Asn Leu Arg Lys Thr Val Val Asn Phe Pro Val Glu Asp Glu
346 900 905 910
348 Ala Leu Gly Gly Thr Ala Phe Val Gln Met Pro Ala His Gly Leu Phe
349 915 920 925
351 Pro Trp Cys Gly Leu Leu Leu Asp Thr Arg Thr Leu Glu Val Gln Ser
352 930 935 940
354 Asp Tyr Ser Ser Tyr Ala Arg Thr Ser Ile Arg Ala Ser Leu Thr Phe
355 945 950 955 960
357 Asn Arg Gly Phe Lys Ala Gly Arg Asn Met Arg Arg Lys Leu Phe Gly
358 965 970 975
360 Val Leu Arg Leu Lys Cys His Ser Leu Phe Leu Asp Leu Gln Val Asn
361 980 985 990
363 Ser Leu Gln Thr Val Cys Thr Asn Ile Tyr Lys Ile Leu Leu Leu Gln
364 995 1000 1005
366 Ala Tyr Arg Phe His Ala Cys Val Leu Gln Leu Pro Phe His Gln Gln
367 1010 1015 1020
369 Val Trp Lys Asn Pro Thr Phe Phe Leu Arg Val Ile Ser Asp Thr Ala
370 1025 1030 1035 1040
372 Ser Leu Cys Tyr Ser Ile Leu Lys Ala Lys Asn Ala Gly Met Ser Leu
373 1045 1050 1055
375 Gly Ala Lys Gly Ala Ala Gly Pro Leu Pro Ser Glu Ala Val Gln Trp
376 1060 1065 1070
378 Leu Cys His Gln Ala Phe Leu Leu Lys Leu Thr Arg His Arg Val Thr
379 1075 1080 1085
381 Tyr Val Pro Leu Leu Gly Ser Leu Arg Thr Ala Gln Thr Gln Leu Ser
382 1090 1095 1100
384 Arg Lys Leu Pro Gly Thr Thr Leu Thr Ala Leu Glu Ala Ala Ala Asn
385 1105 1110 1115 1120
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388 1125 1130
390 <210> SEQ ID NO: 3
391 <211> LENGTH: 1153
392 <212> TYPE: DNA
393 <213> ORGANISM: Homo sapiens
395 <400> SEQUENCE: 3

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/424,686B

DATE: 01/02/2003

TIME: 13:28:39

Input Set : N:\AMC\6497882.txt

Output Set: N:\CRF4\01022003\I424686B.raw